What Is Claimed Is:

1. A distance measuring device, comprising:

light projecting means for projecting a light onto an object to be measured;

light receiving means for receiving the light reflected by the object and outputting a first signal corresponding to the distance to the object;

integration means comprising an integration capacitor, and for integrating said first signal by charging said integration capacitor according to said first signal;

AD conversion means for converting the voltage of said integration capacitor after having performed predetermined number of distance measuring routines, including light projection by said light projecting means, light reception by said light receiving means and charging of said integration capacitor in the state of a predetermined initial voltage level, into a digital signal as a second signal; and

distance determination means for determining the distance to the object based on said second signal, wherein

the number of said distance measuring

routines to be performed is set at the number by which said integration capacitor in the state of the initial voltage level substantially reaches the saturation voltage level of said integration capacitor in case where said distance measuring routines are performed on the condition that the object is placed at a short-range alarm position.

2. A distance measuring device, comprising:

light projecting means for projecting a light onto an object to be measured;

light receiving means for receiving the light reflected by the object and outputting a first signal corresponding to the distance to the object;

integration means comprising an integration capacitor, and for integrating said first signal by discharging said integration capacitor according to said first signal;

AD conversion means for converting the voltage of said integration capacitor after having performed predetermined number of distance measuring routines, including light projection by said light projecting means, light reception by said light receiving means and discharging of said integration capacitor in the state of a

predetermined initial voltage level, into a digital signal as a second signal; and

distance determination means for determining the distance to the object based on said second signal, wherein

the number of said distance measuring routines to be performed is set at the number by which said integration capacitor in the state of the initial voltage level substantially reaches the uncharged state in case where said distance measuring routines are performed on the condition that the object is placed at a short-range alarm position.

3. The distance measuring device according to Claim 1, wherein

said distance measuring device is for being applied to a camera, and

said short-range alarm position is the position closest distance away from said camera capable of being photographed by said camera.

4. The distance measuring device according to Claim 2, wherein

said distance measuring device is for being applied to a camera, and

said short-range alarm position is the position closest distance away from said camera

capable of being photographed by said camera.

5. The distance measuring device according to Claim 1, wherein

said distance measuring device is for being applied to a camera, and

said short-range alarm position is the nearest position that can be brought into a focal point by said camera.

6. The distance measuring device according to Claim 2, wherein

said distance measuring device is for being applied to a camera, and

said short-range alarm position is the nearest position that can be brought into a focal point by said camera.

7. The distance measuring device according to Claim 1, wherein

said distance measuring routine is repeated predetermined n times on the condition that the object is placed at a short-range alarm position, and then a value of the second signal is obtained as AFDATA,

the number of said distance measuring routines to be performed is determined by the following numerical equation;

$n_2=n\cdot ADMAX/AFDATA$,

provided that,

n_2: the number of said distance measuring routines to be performed, and

ADMAX: a value of the second signal which is obtained when said integration capacitor is in the state of the saturation voltage level.

8. The distance measuring device according to Claim 7, wherein

the voltage level of said integration capacitor increases as the object is placed closer to the distance measuring device,

the initial voltage level is uncharged level, and

the saturation voltage level is fully charged level.

9. The distance measuring device according to Claim 7, wherein

the value of the second signal is proportional to the charged amount in said integration capacitor.

10. The distance measuring device according to Claim 2, wherein

said distance measuring routine is repeated predetermined n times on the condition that the object is placed at a short-range alarm position, and then a value of the second signal is obtained

as AFDATA,

the number of said distance measuring routines to be performed is determined by the following numerical equation;

$n_2=n\cdot ADMAX/(ADMAX-AFDATA)$,

provided that,

n_2: the number of said distance measuring routines to be performed, and

ADMAX: a value of the second signal which is obtained when said integration capacitor is at the initial voltage level.

11. The distance measuring device according to Claim 10, wherein

the voltage level of said integration capacitor decreases as the object is placed closer to the distance measuring device, and

the initial voltage level is fully charged level.

12. The distance measuring device according to Claim 10, wherein

the value of the second signal is proportional to the voltage of said integration capacitor.